

eylindricus, postice leviter ampliatus; capite toto rugoso, parabolico, antice vix inciso; pronoto fortiter sat inæqualiter punctato, postice medio lævigato, lateribus regulariter arcuatis, basi lævissime trisinuato, angulis posticis rotundatis; scutello lævi; elytris grosse haud profunde annulato-punctatis, punctis subseriatis, lateribus lævigatis, apicibus obsolete punctatis, stria suturali integra profunde impressa; propygidii medio striis stridulatoriis parum dense prædito; pygidii lateribus punctato-rugosis; mandibulis extus distincte trilobatus:

♂, capite breviter acute cornuto; pronoto profunde longitudinaliter excavato, lateribus utrinque biacuminatis; pygidio politissimo:

♀, paulo longiora, capite postice leviter angulatim carinato; pygidii medio subtiliter punctato.

Long. 20-22.5 mm.; lat. max. 11.5-12.5 mm.

Hab. Astove I.

A specimen of each sex was taken by Mr. P. R. Dupont and presented by him to the Museum. It is a rather small species of a dark reddish colour, and differs most markedly from its allies by the obsolete hind angles of the prothorax. The thoracic cavity of the male is rather narrow but deep, and extends almost to the hind margin of the pronotum. The punctures of the elytra are large, but not deep, and not distinctly arranged in rows.

VII.—Two new Genera of Starfishes.

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THE new genera belong to the Benthoplectinidæ, their position being somewhere between *Benthopecten* and *Luidiaster* (*Acantharchaster*). The type species were described by me as *Acantharchaster**, because the abactinal spinopaxillæ, marginal plates, and adambulacral armature show a great similarity to those of *Acantharchaster dawsoni*.

In his recent account of the *Notomyta* †, Ludwig recognizes eight genera, divided among two families, the Cheirasteridæ (corresponding to Verrill's Pontasterinæ) and the Benthoplectinidæ. These two groups are equivalent to the Benthoplectinidæ as employed by me in 1906 ‡. The new genera

* Zoologischer Anzeiger, Bd. xxxv., March 29, 1910, pp. 549-551.

† "Notomyota, eine neue Ordnung der Seesterne," Sitzungsber. k. preuss. Akad. d. Wiss. 1910, pp. 435-466.

‡ U.S. Fish Comm. Bulletin for 1903, pt. iii. p. 1039.

are intermediate in many respects between Ludwig's two families. They resemble *Luidiaster* (Cheirasteridæ) in the structure of the abactinal spinopaxillæ, heavily armed marginals, and adambulacral plates, but possess also the diagnostic feature of the other family—the odd interradial marginal plates. For this reason I am inclined to maintain the family Benthopectinidæ in the extended sense, and without subfamilies.

Ludwig recognizes two genera with odd interradial marginal plates: *Pararchaster*, having the abactinal plates with several spinelets, and *Benthopecten*, with only one spine or spinelet to a plate, rarely two or three. No other characters are designated. The two groups are extremely close, and often difficulty is encountered in deciding to which genus a given form belongs. This is true of the variable *B. acanthotus*, Fisher, which is *Benthopecten* on the rays, and *Pararchaster* over most of the disk. My *B. claviger* would fall in *Pararchaster* and *B. mutabilis* probably in *Benthopecten*, although many plates have several spinelets (1 to 7). Unfortunately the type of *Pararchaster* is not so well differentiated from *Benthopecten* as some other species of the group—e. g., *P. spinosissimus*. I have used the name *Benthopecten* in the subjoined synopsis in the extended sense, equivalent to Sladen's (not Ludwig's) *Pararchester*. This key is intended to complement the second portion of Ludwig's synopsis ("Notomyota," p. 442).

An unpaired (odd) marginal plate present in some or all of the interradia. Dorsal muscle-bands not attached by a tendon to a proximal ambulacral ossicle.

a. Abactinal plates of papular areas low, tabulate, and strongly stellate, the larger bearing a conspicuous central spine surrounded by a circle of more or less elongate spinelets (fig. 5, p. 92); superomarginals with 2 or 3, inferomarginals with 2 to 5 long bristling spines (fig. 3); odd interradial marginal not especially prominent; usually absent in some of the interradia, never in all, and sometimes present in only one.

b. Papulæ extending one-third to three-fifths length of ray; mouth-plates with numerous (9 to 16) marginal spines disposed in three independent series on each pair of mouth-plates; the median teeth the longest, and less numerous than either furrow series (fig. 1); dorsal muscle-bands not very strong or prominent, often weak

Nearchaster, gen. nov.

- bb.* Papulæ extending only one-seventh length of ray; mouth-plates with comparatively few (5 or 6) marginal spines, regularly graduated in length toward inner teeth (fig. 2); dorsal muscle-bands stout and conspicuous *Myonotus*, gen. nov.
- aa.* Abactinal plates flat or convex, not tabulate, and though frequently lobed on papular areas, not strongly so, bearing a central spine only, or several spinelets in addition, or one to several small spinelets; superomarginals usually with only one large spine, and inferomarginals with one or two primary spines; odd interradial marginal prominent and usually present in all interradial *Benthopecten*, Verrill.

NEARCHASTER, gen. nov.

Benthopectinidæ with the odd interradial marginal plate lacking in from one to four interradial, though sometimes present in all; not always present in both series of the same interradius; abactinal plates large and small intermingled, the larger primary plates bearing on a low tabulum a long sharp spine surrounded by a circle of accessory slender spinules, variable as to number and length—sometimes over half as long as the primary spine; secondary plates with a group of shorter spinelets; primary plates of papular areas strongly stellate; papulæ not in circumscribed areas, but distributed all over disk (except sometimes the very centre) and along ray from one-third to three-fifths its length, being confined to either side of the paxillar area distally; rays very long and slender; marginals extremely spiny—2 or 3 long sharp superomarginal spines and 2 to 5 inferomarginals; subambulacral spines 1 to 3, usually 2, long; furrow-spines 1 to 7; mouth-plates large, with numerous marginal spines, those of each pair of plates disposed in three independent series; the median teeth which are the largest and fewest, and on either side a series of 8 to 12 smaller spines, subequal or graduated in length toward the mesial members of the group; pedicellariæ when present large, pectinate, on any or all of the following plates: abactinals, inferomarginals, actinal intermediates; dorsal muscle-bands not attached to an ambulacral ossicle, rather weak.

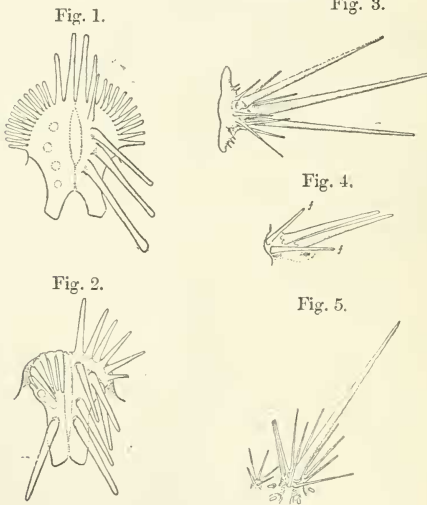
Type, *Acantharchaster aciculosus*, Fisher, 1910.

MYONOTUS, gen. nov.

Benthopectinidæ similar to *Nearchaster*, but differing in having the papulæ confined to the disk and proximal seventh

of ray, in the comparatively few marginal mouth-spines, regularly graduated in length toward the inner teeth, and in the very stout dorsal muscle-bands; marginal plates very spiny (2 or 3 superomarginal and at least 3 inferomarginal spines); primary abactinal plates of papular areas strongly lobed and in the form of tabulate paxillæ, bearing a large central spine, and a circle of small spinelets on the tabulum; odd interradial marginals present in all interradii, the unpaired superomarginal not conspicuously larger than neighbouring plates, and its spines not larger than succeeding superomarginal spines; adambulacral furrow-spines 1 to 3, long; subambulacral spines 2.

Type, *Acantharchaster intermedius*, Fisher, 1910.



- Fig. 1. Mouth-plates of *Nearchaster aciculosus*. $\times 3$.
 2. Mouth-plates of *Myonotus intermedius*. $\times 3$.
 3. Seventh superomarginal plate of *Nearchaster aciculosus*, from above. $\times 3$.
 4. Eighth adambulacral plate of *Myonotus intermedius*: *f*, furrow-spines. $\times 3$.
 5. Abactinal paxillæ of *Nearchaster aciculosus*. $\times 3$.